



SAE The Engineering
Resource For
Advancing Mobility

400 COMMONWEALTH DRIVE WARRENDALE PA 15096

AEROSPACE MATERIAL SPECIFICATION

AMS 5728B

Issued 12-1-51
Revised 10-1-82

STEEL FORGINGS, CORROSION AND HEAT RESISTANT 16Cr - 25Ni - 6Mo Hopkins Electric Ingot Process

This specification has been declared "NONCURRENT" by the Aerospace Materials Division, SAE, as of 10-29-68. It is recommended, therefore, that this specification not be specified for new designs.

This cover sheet should be attached to the "B" revision of the subject specification.

.....

This specification has been declared "~~CANCELLED~~" by the Aerospace Materials Division, SAE, as of 10-1-82. By this action, subject specification number and title will be deleted from the active specification index of Aerospace Material Specifications.

This specification is under the jurisdiction of AMS Committee "F".

SAE Technical Board rules provide that "All technical reports, including standards approved and practices recommended, are advisory only. Their use by anyone engaged in industry or trade or their use by governmental agencies is entirely voluntary. There is no agreement to adhere to any SAE standard or recommended practice, and no commitment to conform to or be guided by any technical report. In formulating and approving technical reports, the Board and its Committees will not investigate or consider patents which may apply to the subject matter. Prospective users of the report are responsible for protecting themselves against liability for infringement of patents."



AEROSPACE MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
40 COMMONWEALTH DRIVE, WARRENDALE, PA 15096

AMS 5728B

Issued 12-1-51
Revised 6-30-57

STEEL FORGINGS, CORROSION AND HEAT RESISTANT
16Cr - 25Ni - 6Mo
Hopkins Electric Ingot Process

1. ACKNOWLEDGMENT: A vendor shall mention this specification number and its revision letter in all quotations and when acknowledging purchase orders.
2. FORM: Ingots, forgings, and forging stock.
3. APPLICATION: Primarily for parts and assemblies, such as turbine wheels and discs, for use at temperatures up to 1350 F.
4. COMPOSITION:

Carbon	0.08 max
Manganese	2.00 max
Silicon	1.00 max
Phosphorus	0.030 max
Sulfur	0.030 max
Chromium	15.00 - 17.50
Nickel	24.00 - 27.00
Molybdenum	5.50 - 7.00
Nitrogen	0.10 - 0.20
Copper	0.50 max

- 4.1 Check Analysis: Composition variations shall meet the requirements of the latest issue of AMS 2240.

5. CONDITION:

- 5.1 Ingots, billets, or shapes for forging shall be supplied in the condition and finish ordered by the forging manufacturer. Shapes for forging may be produced from ingot by extruding, pressing, or hammering.
- 5.2 Unless otherwise specified, shapes shall be hot forged and the resulting forgings hot-cold worked and stress relieved as follows:
 - 5.2.1 Hot forging of shapes into required configuration for subsequent hot-cold working shall be done by pressing or hammering. The temperature to which stock for pressing or hammering shall be heated shall not exceed 2000 F and stock shall be thoroughly and uniformly heated throughout the sections before any working is done. The temperature at which hot working shall cease shall be not lower than 1600 F.
 - 5.2.2 When a forging has been finished to desired hot shape, it shall be cooled in still air to room temperature and inspected for surface imperfections. Imperfections such as small cracks or seams, which would not affect the final hot-cold working operation or use of the forging for service requirements, may be removed by grinding or other suitable means.